CHAPTER ONE

Introduction

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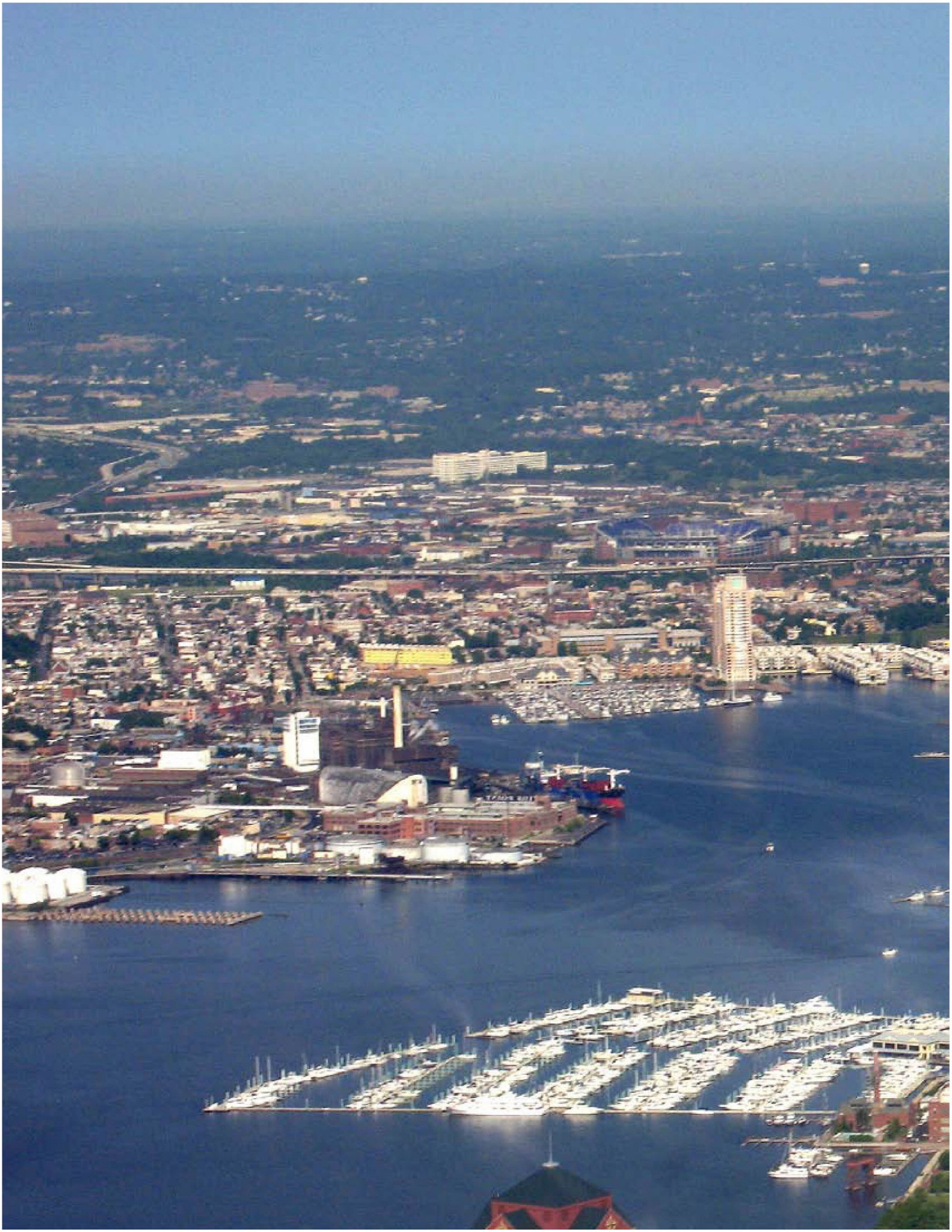


COMMISSION PROCESS

In April of 2007, Governor Martin O'Malley established the Maryland Commission on Climate Change (Commission) through Executive Order 01.01.2007.07. The Commission was charged with the task of developing a ***Climate Action Plan*** (***Plan***) that discusses the drivers and consequences of climate change, necessary preparations for its ensuing impacts on the State, and establishes firm benchmarks and timetables for policy implementation. Shari T. Wilson, Secretary of the Maryland Department of the Environment (MDE) has served as chair of the Commission, whose 21 members represent legislative leadership and State agencies.

As the facilitating agency for development of the ***Plan***, MDE was also responsible for producing an ***Interim Report.*** The ***Interim Report***, which was released on January 14, 2008, updated the Governor and General Assembly on the state of the science on climate change, recommended GHG reduction goals for Maryland, and provided a suite of early actions and priority policy options for consideration, including the recommendations for legislative action addressed in Chapter 7. In months that have followed, the Commission supported its subgroups in further refining and analyzing these options for its final ***Plan***. As a result, this final ***Climate Action Plan*** contains policy recommendations that have been thoroughly discussed through a series of meetings, conference calls, and continuous exchanges between State agencies, stakeholders, and the Center for Climate Strategies (CCS), a consultant that facilitated the Commission's process.

Guided by and comprising the Commission were three Working Groups, also established by the Executive Order: the Greenhouse Gas and Carbon Mitigation Working Group (MWG), chaired by George (Tad) Aburn, Director of MDE's Air and Radiation Management Administration, and co-chaired by Malcolm Woolf, Director of the Maryland Energy Administration (MEA); the Adaptation and Response Working Group (ARWG), chaired by John R. Griffin, Secretary of Maryland's Department of Natural Resources (DNR), and co-chaired by Richard Eberhart Hall, Secretary of the Maryland Department of Planning (MDP) and Don Halligan, Assistant Secretary of MDP; and the Scientific and Technical Working Group (STWG), chaired by Donald Boesch, President, University of Maryland Center for Environmental Science (UMCES), and co-chaired by Frank W. Dawson, Assistant Secretary of DNR and Robert M. Summers, Deputy Secretary of MDE. Each Working Group also had its own set of subgroups, which supported and informed their respective Working Groups regarding priorities for further analysis in their respective fields of interest and expertise. For the MWG and ARWG, these processes were focused on developing final policy recommendations for the *Comprehensive Greenhouse Gas and Carbon Footprint Reduction Strategy* (Chapter 4 of this ***Plan***) and the *Comprehensive Strategy for Reducing Maryland's Vulnerability to Climate Change* (Chapter 5 of this ***Plan***), respectively. The STWG developed the *Comprehensive Climate Change Impact Assessment* (Chapter 2 of this ***Plan***). Its group of 21 scientists and engineers used latest scientific findings of the Intergovernmental Panel on Climate Change (IPCC) and other organizations and computer model projections of Maryland's 21st century climate under scenarios of both continued growth of GHG emissions and mitigated reductions in global emissions.

The membership lists for the Commission, its three Working Groups, and their respective technical work groups are attached to this Plan in Appendix B.

Greenhouse Gas and Carbon Mitigation Working Group (MWG)

MDE continued to lead the MWG's five subgroups, or Technical Working Groups (TWGs), in developing priority policy options for the *Comprehensive Greenhouse Gas and Carbon Footprint Reduction Strategy* (*Reduction Strategy*). During creation of the ***Interim Report***, sector-specific policies had been developed by each of the TWGs: Energy Supply; Transportation and Land Use; Agriculture, Forestry and Waste; Residential, Commercial, and Industrial; and Cross-Cutting Issues. Experts and stakeholders within the TWGs formed subgroups to further refine each policy option description (POD) for review and approval by the MWG and eventually the full Commission. At conclusion of the ***Interim Report***, the MWG had developed 55 priority policy options; in the months following, these were further refined into a suite of 42 cost-effective policy recommendations for reducing GHG emissions in Maryland.

For each recommendation amenable to quantification, the amount of foreseeable GHG reductions, in annual and cumulative tonnages

avoided by goal years, and the cost or cost savings were calculated. As one of the last steps in its analysis, these quantifications gave the MWG and the Commission the opportunity to remove impractical measures and move forward with an overall cost-effective suite of recommendations.

The Commission developed the *Reduction Strategy* to support state and national climate policy objectives and to take into account state, regional, and national climate change policy opportunities involving energy, transportation, economic development, environmental quality, and civic infrastructure. CCS was able to work with the Commission as an impartial and expert party, providing technical support and planning activities for the Commission. This combined effort culminates in policy recommendations that, if adopted and aggressively implemented, will reduce GHG emissions and enhance energy and economic opportunities in Maryland as early as 2012, and will achieve or exceed Maryland's reduction goals in 2020 and beyond.

Adaptation and Response Working Group (ARWG)

The ARWG followed a similar path to that of the MWG in order to complete the development of Phase One of the *Comprehensive Strategy for Reducing Maryland's Vulnerability to Climate Change*. Working closely with CCS, DNR and MDP coordinated the efforts of the ARWG's thirty-four working members. Following the release of the ***Interim Report***, the ARWG continued to develop and refine specific policy recommendations within its four Technical Working Groups (TWGs): Existing Built Environment & Infrastructure, Future Built Environment & Infrastructure, Human Health, Safety & Welfare, and Resources & Resource-Based Industry. Led by a facilitator from CCS, experts and stakeholders within the TWGs also formed subgroups to further refine each policy option description (POD) for review and approval by the AWRG and full Commission.

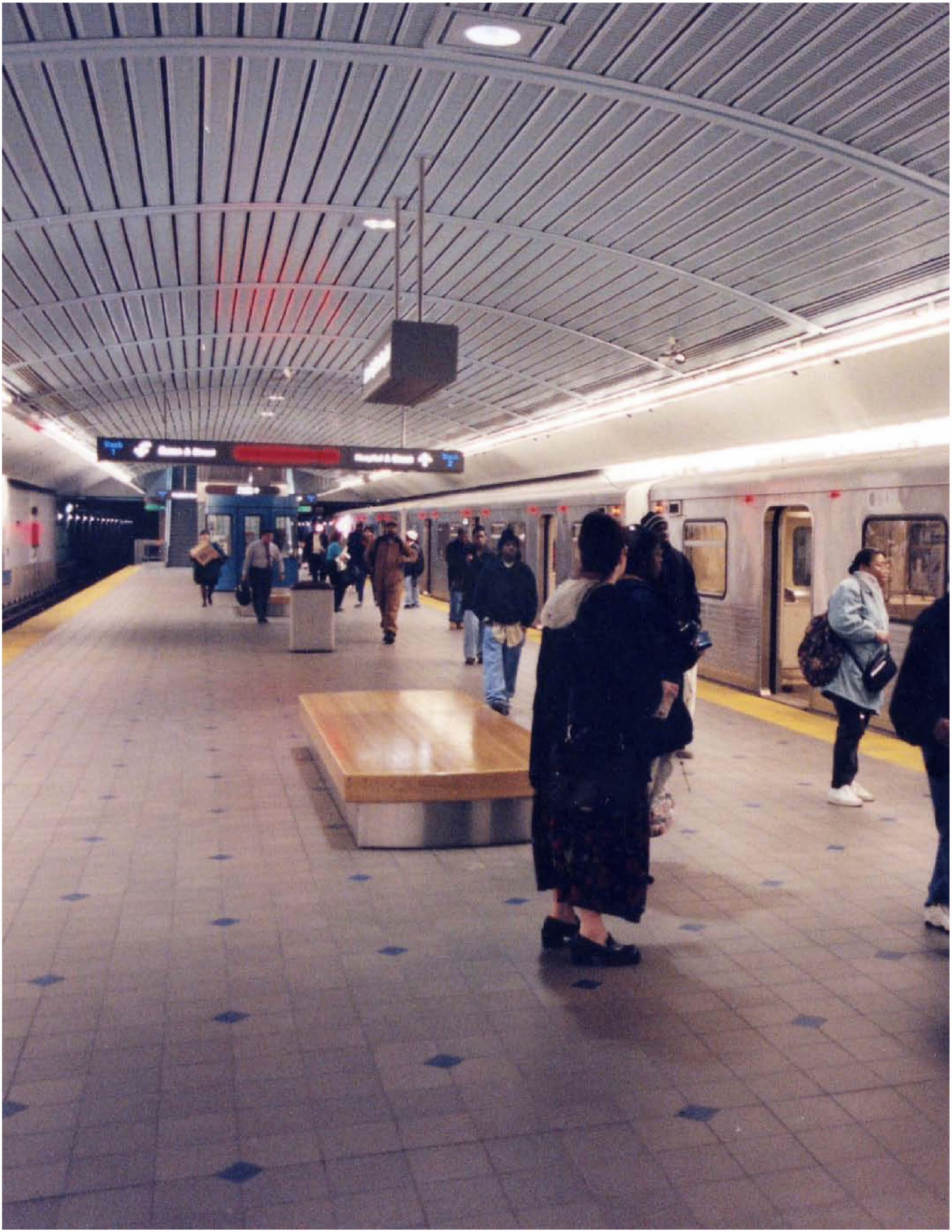
Full versions of the priority policy recommendations developed by the ARWG contained in Appendix E of this ***Climate Action Plan***. Each POD write-up includes a detailed discussion of implementation mechanisms, related policies and programs in place, qualitative benefits and cost assessments and an overview of feasibility issues. Following the approval of the priority policy options by the ARWG, independent policy recommendations from respective TWGs were integrated into a framework consistent with the ARWG's vision for protecting Maryland's future economic well-being, environmental heritage and public safety.

Scientific and Technical Working Group (STWG)

Under the leadership of the University System of Maryland, the STWG developed an assessment of the likely consequences of the changing global climate to Maryland's agricultural industry, forestry resources, fishery resources, aquatic and terrestrial ecosystems, and human health. Subgroups addressed (1) observed climate changes and model projections of future climatic conditions in Maryland; (2) water resources and aquatic environments; (3) agriculture, forestry and terrestrial ecosystems; (4) coastal vulnerability from sea-level rise and storms; (5) the Chesapeake Bay and other coastal ecosystems; and (6) human health. All of the subgroups used the common model projections of changes in temperature, precipitation and other variables derived from these projections, such as soil moisture, droughts, intense rainfall events and heat waves. The same climate model runs that were employed in the most recent IPCC assessment were used for higher emissions and lower emissions scenarios.

Based on these analyses and reviews of the latest scientific literature, the STWG prepared an integrated climate impact assessment to inform Maryland citizens and policy makers of the likely consequences of global climate change on the places we live and resources we depend on. The use of higher and lower scenarios allowed an estimation of the consequences of climate change in Maryland that could be avoided by global actions to reduce emissions of GHGs. The assessment is also intended to provide guidance for efforts in Maryland to adapt to our changing climate through this century.

The STWG worked to produce an assessment report that is scientifically sound and documented but understandable to the non-scientific reader. A draft report of the *Comprehensive Climate Change Impact Assessment* underwent peer review and revision before submitting it to the Commission.



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